

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C12N15/09 C12N15/63 C07K14/715 C07K16/28  
C12N5/10 A61K31/713 A61K38/17 A61K39/395

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

SEQUENCE SEARCH, EPO-Internal, WPI Data, PAJ, MEDLINE, BIOSIS, EMBASE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>US 5 510 259 A (NAKAMURA MASATAKA ET AL) 23 April 1996 (1996-04-23)</p> <p>SEQ ID NO:4 &amp; 7 column 1, paragraph 1 column 3, paragraph 4 column 9, paragraph 6 column 10, paragraph 7 column 11, paragraph 3 claims 1-18, -&amp; DATABASE USPTO PROTEIN DATABASE 'Online! EBI, Hinxton, Cambridgeshire, U.K.; 7 October 1996 (1996-10-07) SUGAMURA, K. ET AL: "Sequence 4 from patent US 5510259." Database accession no. AAB11694 XP002252349</p> <p>-/--</p>	<p>32,34, 36-38, 43-53, 56,59-74</p>

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

26 August 2003

Date of mailing of the international search report

22/09/2003

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>abstract  -&amp; DATABASE USPTO PROTEIN DATABASE  'Online!  EBI, Hinxton, Cambridgeshire, U.K.;  7 October 1996 (1996-10-07)  SUGAMURA, K. ET AL: "Sequence 7 from  patent US 5510259"  Database accession no. AAB11695  XP002252350  abstract</p> <p>-----</p> <p>EP 0 578 932 A (AJINOMOTO KK; SUGAMURA  KAZUO (JP)) 19 January 1994 (1994-01-19)</p> <p>page 2, paragraph 1  page 3, paragraph 3  page 7, line 36 - line 52  page 8, line 19 - line 38  page 16 -page 17  page 29 -page 30  page 40 -page 41  claims 1-35</p> <p>-&amp; DATABASE GENESEQ 'Online!  EBI, Hinxton, Cambridgeshire, U.K.;  13 June 1994 (1994-06-13)  ASAO, H. ET AL: "IL-2 receptor gamma  chain."  Database accession no. AAR47148  XP002252351  abstract</p> <p>-&amp; DATABASE GENESEQ 'Online!  EBI, Hinxton, Cambridgeshire, U.K.;  13 June 1994 (1994-06-13)  ASAO, H. ET AL: "IL-2 receptor gamma  chain."  Database accession no. AAR47149  XP002252352  abstract</p> <p>-----</p>	<p>32, 34,  36-38,  43-53,  56, 59-74</p>

## INTERNATIONAL SEARCH REPORT

national application No.  
PCT/IL 03/00316**Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)**

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
Although claims 1-8, 10, 96-103, as far as in vivo methods are concerned, and claims 22-30, 42, 75-85, 89-95 are directed to a method of treatment of the human or animal body, the search has been carried out and based on the alleged effects of the compounds or compositions.
2. ☒ Claims Nos.: 9, 21, 31, 41, 54, 55, 57, 86-88 and, partially 59, 60  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210

3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

## Continuation of Box I.2

Claims Nos.: 9, 21, 31, 41, 54, 55, 57, 86-88 and, partially 59, 60

Claims 9, 21, 31, 41, 54, 57, 86-88 and, partially 59, 60 refer to "small molecules" without giving a true technical characterisation of said "small molecules." Moreover, no such "small molecules" are defined in the application. In consequence, the scope of said claims is ambiguous and vague, and their subject-matter is not sufficiently disclosed and supported (Articles 5 and 6 PCT). No search can be carried out for such purely speculative claims whose wording is, in fact, a mere recitation of the results to be achieved.

Claim 55 refers to a pharmaceutical composition comprising a polypeptide fragment of NIK according to claims 43-48. However, claims 43-48 refer to fragments of the IL2-receptor common gamma chain. Consequently, the subject-matter of claim 55 is too unclear (Article 6 PCT) to be searched.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IL 03/00316

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5510259	A	23-04-1996	JP 3255699 B2	12-02-2002
			JP 7133298 A	23-05-1995
			DE 69331175 D1	03-01-2002
			DE 69331175 T2	29-08-2002
			EP 0578932 A2	19-01-1994
			US 5705608 A	06-01-1998
			US 5889160 A	30-03-1999
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